

CLAIM AMENDMENTS

1. (Withdrawn) A cannula assembly for the maintenance of an operative pneumoperitoneum in a patient comprising:

an elongated cannula having a proximal end and a distal end;

an air inflow inlet arranged in said cannula as a laparoscopic instrument is introduced through said cannula, between said instrument and an inner wall of said cannula.

2. (Withdrawn) The cannula assembly as recited in claim 1, including:

a valve securably arranged at said proximal end of said cannula to provide a tight seal and minimize the escape of gas introduced into the patient's pneumoperitoneum when an operative instrument is passed therethrough.

3. (Withdrawn) The cannula assembly as recited claim 1 wherein said valve comprises an inner portion of a proximal cap which is removably attachable to said proximal end of said cannula.

4. (Withdrawn) The cannula assembly as recited in claim 3, wherein said valve assembly has a compressible O-ring thereon to provide a further seal of said cap to said cannula.

5. (Withdrawn) The cannula assembly as recited in claim 2 wherein said valve has a plurality of fluid flow directing fins thereon to direct any backflow of gas to tighten the sealing effect of said valve.

6. (Withdrawn) The cannula assembly as recited in claim 2 wherein said valve has a distal underside with a pocket arrangement thereon to capture any backflowing gas and create a more efficient seal by said valve in said cannula.

7. (Withdrawn) The cannula assembly as recited in claim 2, wherein said operative instrument has at least one gaseous fluid discharge port arranged thereon to permit the introduction of distension gas through said instrument and into said patient.

8. (Withdrawn) The cannula assembly as recited in claim 7, wherein said gaseous port comprises a collar disposed about at least a peripheral portion of said instrument, said collar having at least one discharge jet thereon to provide pressurized gas from a controlled pressure source to said patient's abdomen.

9. (Amended) A method of maintaining an operative pneumoperitoneum in a patient undergoing a surgical procedure comprising the steps of:

introducing a trocar through a portion of an abdominal wall of ~~said~~a patient;

introducing an ~~operative~~a surgical instrument through a lumen in ~~said~~the trocar; and

introducing a pressurized gas from a controlled pressure source into ~~said~~the surgical
instrument; and

directing the pressurized gas from the surgical instrument into the patient through a
passageway between ~~said~~the surgical instrument and a wall of ~~said~~the lumen in ~~said~~the trocar.

10. (Amended) The method as recited in claim 9, further including the step of:
~~introducing said pressurized gas into said~~sealing the passageway between ~~said~~the surgical
instrument and ~~a~~the wall of ~~said~~the lumen in ~~said~~the trocar ~~via at least one port in said trocar to~~
block the escape of gas introduced into the patient.

11. (Amended) The method as recited in claim 9, ~~including wherein the step of directing~~
pressurized gas from the surgical instrument into ~~said~~the patient through a passageway between
~~said~~the surgical instrument and a wall of ~~said~~the lumen in ~~said~~the trocar ~~via~~involves directing a
flow of pressurized gas through at least one port in a wall portion of ~~said~~the surgical instrument.

12. (Amended) The method as recited in claim 9, further including the steps of:
introducing ~~at least one a~~ first cannula into an abdominal wall portion of ~~said~~the patient;
and
introducing at least one operative surgical instrument through ~~said~~the first ~~at least one~~
cannula to permit simultaneous operative function with ~~said~~the trocar ~~as said trocar is caused to~~
~~introduce distension gas into said patient.~~

13. (Amended) The method as recited in claim 12, further including the steps of:
introducing a ~~further~~second cannula into ~~said~~the patient ~~being operated upon; and~~
monitoring the pneumoperitoneum of ~~said~~the patient through ~~said further~~the second
~~cannula introduced into said patient.~~

14. (Amended) The method as recited in claim 1210, ~~including;~~ wherein the step of sealing the passageway between the surgical instrument and the wall of the lumen in the trocar includes the step of arranging a removable valve onto said at a proximal end portion of said the trocar.

15. (Amended) A method of maintaining an operative pneumoperitoneum in a patient undergoing a surgical procedure comprising:

introducing a trocar through a portion of an abdominal wall of ~~said a~~ said a patient at a first site;
introducing ~~an operative~~ at least one surgical instrument through a lumen in ~~said the~~ said the trocar;
introducing a pressurized gas from a controlled pressure source into ~~said the~~ at least one surgical instrument;

directing the pressurized gas from the at least one surgical instrument into the patient
through ~~an~~ a gas passageway between ~~said the~~ at least one surgical instrument and a wall of ~~said the~~ said the lumen in ~~said the~~ said the trocar;

sealing the passageway between the at least one surgical instrument and the wall of the
lumen in the trocar;

introducing a cannula through ~~said the~~ said the abdominal wall of ~~said the~~ said the patient at a second site;
monitoring gas pressure within the abdomen of the patient through the cannula; and
~~connecting said trocar and said cannula in fluid communication with one another through~~
~~a conduit arranged therebetween to provide;~~

~~controlled~~controlling gas pressure within the abdomen of ~~said~~the patient based upon
feedback from the cannula.

16. (Amended) The method as recited in claim 15, ~~including~~wherein the step of:
~~arranging an air seal in said~~sealing the passageway between the surgical instrument and
the wall of the lumen in the trocar at a location proximal to said includes the step of forming a
pressurized gas seal about the instrument within the passageway ~~therein.~~

17. (Amended) The method as recited in claim 15, wherein ~~said~~the trocar ~~which~~
~~introduces gas into said patient~~ and ~~said~~the cannula are arranged in operative communication
with one another to controllably balance ~~said~~ pressurized gas introduced into ~~said~~the patient.

18. (Amended) The method as recited in claim 15, wherein ~~said~~the trocar has a plurality
of ~~medically-operative~~surgical instruments extending therethrough simultaneously.

19. (Amended) The method as recited in claim 15, wherein ~~said~~the cannula has an open
bore extending therethrough to permit operative instruments therethrough ~~without a mechanical~~
~~seal.~~

20. (New) The method as recited in Claim 10, wherein the step of sealing the passageway
between the surgical instrument and the wall of the lumen in the trocar includes the step of
forming a pressurized gas seal about the surgical instrument within the passageway.

21. (New) The method as recited in Claim 9, wherein the step of directing the pressurized gas from the surgical instrument into the patient involves directing a flow of pressurized gas into the lumen of the trocar at a location distal to any valve arrangement within the trocar.